# Chapter 1 – INTRODUCTION TO PROJECT

## 1.1 ABSTRACT

This **micro project in C++ Unit Converter** is a console application without graphic developed using the C++ programming language. Here we have used switch case.

Here, you can perform functions such as meter to centimeter etc. File handling has been extensively used in this project for almost all functions. So, this project can definitely guide you to understand C++ micro projects in a better way.

The source code is organized well, and it has multiple comment lines to help you understand the project better. The whole code is around 70 lines, so I haven't displayed it here. You can directly download the source code plus application file from the download link.

For unit converter, this project considers four options –case:1, case:2, case:3, case:4 .These options work simultaneously with the operations mentioned above.

## 1.2 RATIONALE

By building this project, you will comprehend the basics of the input and output course. Furthermore, this C++ project structure will help you in knowing about the system of file management. The program designed by you will be ready to accumulate all the students' data and information correctly. This data can be any information related to the student, their personal information, academic records, roll number, etc. This project will teach you how to tackle wrong inputs.

## 1.3 COURSE OUTCOMES ADDRESSED

**i.** Develop C++ program using switch case.

**ii.** Develop C++ program using Arithematic operators

**iii.** Develop the consept of execution.

# Chapter 2 – LITERATURE REVIEW

The project is mainly based on following objectives:

- To create a project using C++ programming and its features.
- To implement features like class, objects, switch case, Arithematic operators.
- To be familiar with resource reusability by making class and objects.
- To make the program easy while running it.
- To concise the memory of program as far as possible.
- To get an idea about making a simple project using C++.
- To be able to solve problems by Compiling and Debugging.
- To learn about different dairy functions included in different header files.
- To learn about the use of Arithematic operators in C++.
- To learn to be able to develop complex programs aimed at solving particular task in practical
- field as per users requirements.
- To be able to work in group as a team sharing different responsibilities
- They want to work as fast as possible as the existing system...
- Improve data inconsistency and integrity for the system.
- More accuracy speed and better error handling feature.
- Member arises search can be performed in the library system...

# Chapter 3 – PROJECT DETAILS

## 3.1 ACTUAL METHODOLOGY FOLLOWED

- Group of 4 team members.
- Each one has assigned clear responsibility.
- During the available working hours each team member performed his work.
- Project work is divided into 3 section
  1.Collect information
  2.Coding
  3.report

## 3.2 ACTUAL RESOURCES REQUIRED

| Sr. No. | Name of Resource/Material | Specifications | Quantity | Remarks |
|---|---|---|---|---|
| **1.** | Software | Windows 11<br>Vs code | - | - |
| **2.** | Internet Lab | - | - | - |
| **3.** | Hardware | Intel(R) Core i3 4.0 GHZ<br>or Higher Processor,<br>Printer | - | - |

# Chapter 4 – MICRO-PROJECT OUTPUTS

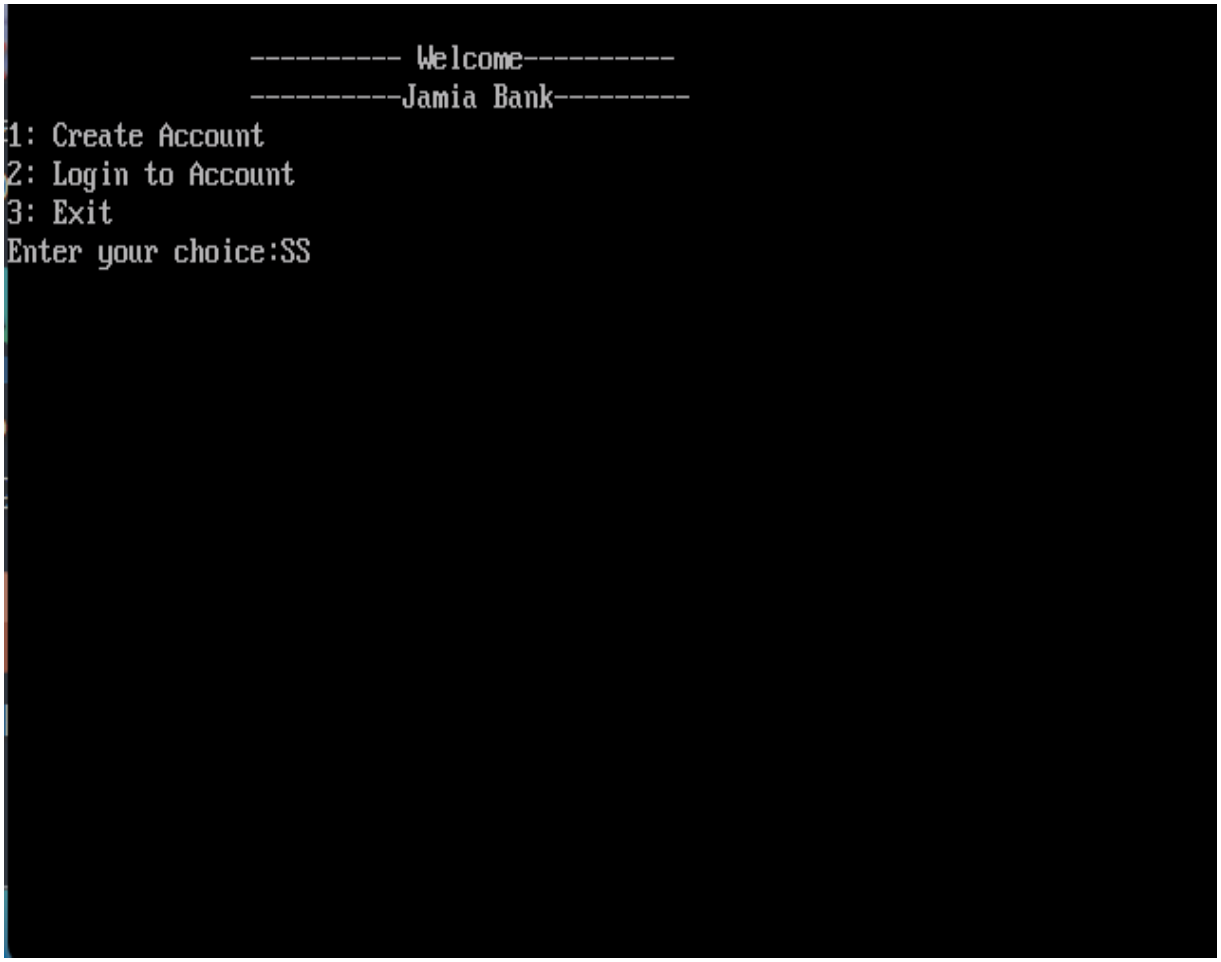
## 4.1 SOURCE CODE OF THE MICRO-PROJECT

```
#include<iostream.h>
#include<conio.h>



class bank
{
   private:
         long  int ac_no;
         int password;
         char name[12];
         char address[120];

   public:
         void home()
         {   clrscr();
            int choice;

            cout<<"\n\t\t---------- Welcome----------";
            cout<<"\n\t\t----------Jamia Bank---------";

            cout<<"\n1: Create Account";
            cout<<"\n2: Login to Account";
            cout<<"\n3: Exit";

            cout<<"\nEnter your choice:";
            cin>>choice;


            switch(choice)
            {
            case 1:
                  createAC();
               break;
            case 2:
                  loginAC();
               break;
            case 3:
                  while(0);
               break;

            default:
               cout<<"\nERROR !!, (Enter correct choice)";
               break;
            }
```

```
}

void createAC()
{   clrscr();
    ac_no = 12345678;
    cout<<"\nEnter your name :";
    cin>>name;
    cout<<"\nEnter your address :";
    cin>>address;
    cout<<"create your password:";
    cin>>password;
    cout<<name<<"\n, your account number is"<<ac_no;
    cout<<"\nYour password is:"<<password;

    cout<<"\nPRESS ANY KEY TO HOME PAGE :";

    getch();
    home();

}

void loginAC(){
clrscr();
    cout<<"\nEnter your Account number :";
    cin>>ac_no;
    cout<<"\nEnter your password :";
    cin>>password;

    check(ac_no, password);

    cout<<"\nPRESS ANY KEY TO HOME PAGE :";

    getch();
    home();


}

void check(int ac,int pass)
{
clrscr();

    if(ac == ac_no && pass == password){
          cout<<"\nYou successfully logined :";
    }else{
          cout<<"\nAccount  number or password is wrong :";
    }

    cout<<"\nPRESS ANY KEY TO HOME PAGE :";

    getch();
```

```
            home();

        }

};


int main()
{
   bank B;

   B.home();

   return 0;
}
```

## 4.2 OUTPUT OF THE MICRO-PROJECT



```
Enter your name :Md_Hussain

Enter your address :Jamia
create your password:1234S_
```

```
                ---------- Welcome----------
                ----------Jamia Bank---------
1: Create Account
2: Login to Account
3: Exit
Enter your choice:
ERROR !!, (Enter correct choice)
PRESS ANY KEY TO HOME PAGE :
```

## 4.2 SKILL DEVELOPED/LEARNING OUT OF THIS MICRO-PROJECT

### At the end of this coursework, Student was able to:

- Explain Procedure oriented programming concepts and apply them to the modeling of real world systems.
- Explain the Procedure oriented paradigm and utilization of the offered facilities.
- Demonstrate the ability to develop and derive new class structures and organize them such that they will model real world systems within computers.

# Chapter 5

# ADVANTAGES & APPLICATIONS

## 5.1 ADVANTAGES

- They want to work as fast as possible as the existing system...
- Improve data inconsistency and integrity for the system.
- More accuracy speed and better error handling feature.
- Easy to make account in bank and login.
- Student can easily calculate the units.
- Saved lot of time.

## 5.2 APPLICATIONS

- Banking management system
- Quick, easy, flexible generation of the member reports.
- There would be a dynamic and fully computerized system would be developed.
- User friendly environment.
- Can be implemented in mobile application.

# Chapter 6

# CONCLUSIONS, FUTURE SCOPE & REFERENCES

## 6.1 CONCLUSION

Hence after the completion of the project we got familiar with the C++ programming and its features.

A complete and useful for students can only be developed with lot of intensive effort and time. Due to lack of time and we are beginners in programming program that we expected can't be developed by us.

As a whole, the project has been a good learning experience for us. We have gained knowledge about the various aspects of C++ programming. At the same time, we have developed a deep understanding about the file handling in C++.

We still want to emphasize that the program is not complete by itself. There is still a lot of room for improvement. Graphics may be added to program to make it more attractive. The mouse cursor may be initialized in order to make the program even more interactive.

## WEEKLY WORK / PROGRESS REPORT

| Details of 16 Engagement Hours of the Student Regarding Completion of the Project | | | | | | |
|---|---|---|---|---|---|---|
| Week No. | Date | Timing | | | Work/Activity Performed | Sign of Guide |
| | | From | To | Duration in Hours | | |
| 1. | | | | | | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| | | | | | | |

Name & Signature of Project Guide

**Prof.**

# Micro-Project Evaluation Sheet

**Academic Year:** _____ **Semester:** _____

**Program:** _____ **Course Code:** _____

**Course and Code:** _____

**Title of the Micro-Project:** _____

_____

**Course Outcome Achieved:**

**A.** _____

**B.** _____

**Major Learning Outcomes achieved by students by doing the project:**

**A. Practical Outcomes:**

**i.** _____

**ii.** _____

**Comments / Suggestions about team work / leadership / inter-personal communication:**

| Enrollment No. | Student Name | Part A – Process Assessment | | Part B – Product Assessment | | Total (10M) |
|---|---|---|---|---|---|---|
| | | Project Proposal (2M) | Project Methodology (2M) | Project Report / Working Model (2M) | Individual Presentation / Viva (4M) | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
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| | | | | | | |

Name & Signature of Project Guide

**Prof.**

# Micro-Project Feedback Sheet

**Evaluation as per Suggested Rubric for Assessment of Micro Project**

✓ (Please tick in appropriate cell for each characteristic)

| SN | Characteristic to be assessed | Poor ( Marks 1-3 ) | Average ( Marks 4-5 ) | Good ( Marks 6-8 ) | Excellent ( Marks 9-10 ) |
|---|---|---|---|---|---|
| 1 | **Relevance to the Course** | Relate to very few LOs | Related to some LOs | Take care of at-least one CO | Take care of more than one CO |
| | | | | | |
| 2 | **Literature Survey / Info. Collection** | Not more than two sources, very old reference | At-least 5 relevant sources, at least 2 latest | At –least 7 relevant sources, most latest | About 10 relevant sources, most latest |
| | | | | | |
| 3 | **Completion of Target as per Project Proposal** | Completed less than 50% | Completed around 50 to 60% | Completed around 60 to 80% | Completed more than 80 % |
| | | | | | |
| 4 | **Analysis of Data and Representation** | Sample Size small, data neither organized nor presented well | Sufficient and appropriate sample, enough data generated but not organized & not presented well. No or poor inferences drawn | Sufficient and appropriate sample, enough data generated which is organized and presented well but poor inferences drawn | Enough data collected by sufficient & appropriate sample size. Proper inferences drawn by organizing and presenting data through tables, charts and graphs |
| | | | | | |
| 5 | **Quality of Prototype / Model / Software** | Incomplete fabrication/assembly | Just assembled/ fabricated and parts are not functioning well. Not in proper shape, dimensions beyond tolerance limit. Appearance/finish is shabby | Well assembled/ fabricated with proper functioning parts. In proper shape, within tolerance dimensions and good finish/ appearance. But no creativity in design & use of material | Well assembled/ fabricated with proper functioning parts. In proper shape, within tolerance dimensions and good finish/ appearance. Creativity in design & use of material |
| | | | | | |
| 6 | **Report Preparation** | Very short, poor quality sketches, details about methods, material, precaution & conclu sions omitted, some details are wrong | Nearly sufficient and correct details about methods, material, precautions and conclusion, but clarity is not there in present-ation. But not enough graphic description | Detailed, correct and clear description of methods, materials, precautions and Conclusions. Sufficient Graphic Description. | Very detailed, correct, clear description of methods, materials, precautions and conclusions. Enough tables, charts and sketches |
| | | | | | |
| 7 | **Presentation** | Major information is not included, information is not well organized | Includes major information but not well organized and not presented well | Includes major information and well organized but not presented well | Well organized, includes major information ,well presented |
| 8 | **Any other** (depending upon nature of project: *please write indicators by pen*) | | | | |
| | | | | | |
| 9 | **Defense** | Could not reply to considerable number of question | Replied to considerable number of questions but not | Replied properly to considerable number of question | Replied most of the questions properly |

| S N | Characteristic to be assessed | Poor ( Marks 1-3 ) | Average ( Marks 4-5 ) | Good ( Marks 6-8 ) | Excellent ( Marks 9-10 ) |
|---|---|---|---|---|---|
| | | | very properly | | |
| | | | | | |